

Patent Claims:

1. Programming apparatus for transmitter/receiver systems for contactless actuation of doors and gates, wherein for actuation of a door or gate by a transmitter (3) of a transmitter/receiver system a transmitter code is read into an associated receiver (4) and compared there with receiver codes, comprising the following components:

- a computer unit (13) for management of the transmitter codes and the receiver codes of the transmitter/receiver systems,
- an input unit for definition of the transmitter codes and the receiver codes of the transmitter/receiver systems and
- an interface unit (9") for connection of transmitters (3) and receivers (4), by way of which receiver codes can be issued at connected receivers (4) and transmitter codes at connected transmitters (3), wherein defined in the computer unit (13) for each transmitter/receiver system are transmitter codes for the transmitter (3) thereof as subsets of the receiver codes of the receiver (4) thereof.

2. Programming apparatus according to claim 1, characterised in that this comprises a display unit by means of which the transmitter codes and receiver codes can be visualised.

3. Programming apparatus according to one of claims 1 and 2, characterised in that a specific identification is allocated in the apparatus to the transmitter codes and receiver codes of a transmitter/receiver system.

4. Programming apparatus according to claim 3, characterised in that the transmitter codes and receiver codes of a transmitter/receiver system are stored in the computer unit (13) under the identification.

5. Programming apparatus according to one of claims 3 and 4, characterised in that the identification is predeterminable by way of the input unit.

6. Programming apparatus according to any one of claims 1 to 5, characterised in that a list of codes from which receiver codes are selectable by means of the input unit is stored in the computer unit (13).
7. Programming apparatus according to any one of claims 1 to 5, characterised in that the receiver codes can be input by means of the input unit.
8. Programming apparatus according to one of claims 6 and 7, characterised in that a transmitter code for a transmitter (3) of a transmitter/receiver system is predeterminable by selection from the receiver codes of the associated receiver (4) by means of the input unit.
9. Programming apparatus according to claim 8, characterised in that a receiver code allocated as transmitter code is masked in the computer unit (14), wherein masked receiver codes are blocked for a further allocation of the transmitter codes.
10. Programming apparatus according to any one of claims 1 to 9, characterised in that receiver codes for a receiver (4) and/or transmitter codes for a transmitter (3) of a transmitter/receiver system are variable by means of the input unit.
11. Programming apparatus according to claim 10, characterised in that receiver codes and/or transmitter codes are erasable by means of the input unit.
12. Programming apparatus according to any one of claims 1 to 11, characterised in that the respective current version of the transmitter codes and receiver codes is stored in the computer unit (13).
13. Programming apparatus according to claim 12, characterised in that updated transmitters codes can be output at the respective transmitter and/or updated receiver codes at the respective receiver (4) by way of the interface unit (9").
14. Programming apparatus according to any one of claims 1 to 13, characterised in that the apparatus is connectible with a personal computer (16).
15. Programming apparatus according to any one of claims 1 to 13, characterised in that the apparatus is integrated in a personal computer (16).

16. Programming apparatus according to one of claims 14 and 15, characterised in that the display unit is formed by a terminal (18).

17. Programming apparatus according to any one of claims 14 to 16, characterised in that the input unit is formed by a keyboard (19).

18. Programming apparatus according to any one of claims 1 to 17, characterised in that the interface unit (9") comprises at least one interface adapter.

19. Programming apparatus according to any one of claims 1 to 18, characterised in that the interface unit (9") comprises at least one interface (15) for contactless data transmission.